REMARKS / DISCUSSION OF ISSUES

Claims 1-5 and 8-22 are pending in the application.

The Office action rejects claims 19 and 21 under 35 U.S.C. 102(b) over Stern (USP 5,771,321). The applicants respectfully traverse this rejection.

The Examiner's attention is requested to MPEP 2131, wherein it is stated:

> "A claim is anticipated only if ***each and every element*** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The ***identical invention*** must be shown in as ***complete detail*** as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 19, upon which claim 21 depends, claims a display device that includes a light guide and a movable element; and wherein the movable element or the light guide includes an anti-adhesion layer on the side at which the contact is made between the movable element and the light guide.

The Office action asserts that Stern teaches an anti-adhesion layer on the side at which the contact is made between the movable element and the light guide at column 13, lines 36-37 or the element 54 in FIG. 4B. The applicants respectfully disagree with this assertion.

At the cited text, Stern specifically teaches that the Teflon layer is provided to increase the adhesion properties of the device. Stern teaches that the Teflon layer includes a charge layer that is produced by "ion-implantation of the of the light storage plate material ... resulting in a constant electrostatic downward force on the tap beam, holding the beam in contact with the top surface 34 of the light storage plate mesa 26" (Stern, column 13, lines 35-42). The applicants respectfully maintain that Stern's specific teaching of a technique for increasing the holding forces on the tap beam is inconsistent with an assertion that Stern's Teflon layer corresponds to the applicants' claimed anti-adhesion layer.

The applicants further maintain that the elements 54 in FIG. 4B are specifically taught as being "stand-offs" that are distributed across the lower tap beam surface,

and cannot be said to correspond to a "layer", as the term layer is commonly understood and as the term is used throughout the applicants' specification.

Because Stern fails to teach an anti-adhesion layer on the side at which contact is made between the movable element and the light guide, as specifically claimed in claim 19, the applicants respectfully maintain that the rejection of claims 19 and 21 under 35 U.S.C. 102(b) over Stern is unfounded, per MPEP 2131.

Additionally, claim 21 includes the limitation that the movable element is electrically conducting and at a fixed potential. The Office action asserts that Stern teaches this limitation at column 13, lines 3-13. The applicants respectfully disagree with this assertion. The cited text follows:

> "Electrodes 60, 62, 64 are provided on the viewing substrate 38, upper surface of the tap beam 28, and the light storage plate 12, respectively, for actuating the tap beam in a tri-electrode scenario. In this case the light tap is maintained out of contact with the light storage plate at an intermediate point, e.g., half-way, between the light storage plate mesa and the viewing substrate, when the potential difference between the mechanical tap beam and the light storage plate is about the same as the potential difference between the mechanical tap beam and the viewing substrate."

As can be seen, the cited text refers only to a potential difference between electrodes in one of the possible states of the electrodes. The applicants respectfully maintain that teachings regarding a potential difference have no bearing on the potential at one of the electrodes, absent a reference to the potential at the other electrode. For example, if an AC voltage were applied to all three of Stern's electrodes 60, 62, and 64, the potential difference between the electrodes would remain constant, even though the potential at the movable element (electrode 62) would be continuously varying.

Because Stern fails to teach that the movable element is electrically conducting and at a fixed potential, as specifically claimed in claim 21, the applicants respectfully maintain that the rejection of claim 21 under 35 U.S.C. 102(b) over Stern is unfounded, per MPEP 2131.

The Office action rejects claims 1, 3, 5, 10-11, 13-15, and 22 under 35 U.S.C. 103(a) over Stern. The applicants respectfully traverse this rejection.

The Examiner's attention is requested to MPEP 2142, wherein it is stated:

> "To establish a *prima facie* case of obviousness ... the prior art reference (or references when combined) ***must teach or suggest all the claim limitations***... If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness."

Claim 1, upon which claims 3, 5, 10-11, and 13-15 depend, claims a display device that includes a light guide and a movable element, wherein the movable element is situated in an evacuated space below 0.1 atmosphere. Claim 22 includes a similar limitation.

Stern fails to teach a display device wherein a movable element is situated in an evacuated space below 0.1 atmosphere.

The Office action acknowledges that Stern teaches, at column 41, lines 40-46, the creation of holes in the tap beam to provide an escape route for air trapped between the tap beam and either the light storage plate or the viewing substrate as the tap beam is actuated toward the plate or toward the substrate (Office action, page 3, lines 7-10). The Office action subsequently asserts that, because of these holes, "there is no air being trapped in the space so that the air space between the light guide and the moveable member would be maintained in a low-pressure condition" (Office action, page 3, lines 11-13). The applicants respectfully disagree with this unfounded assertion. The presence of holes in the tap beam have no bearing on the amount of air pressure within the cavity that contains the tap beam. Stern acknowledges that air is present in the cavity, and provides holes in the movable beam to allow the air to travel from one side of the beam to the other as the beam is moved. One of ordinary skill in the art will recognize that the applicants claimed evacuated space obviates or minimizes the need for such holes, thereby simplifying the manufacture of the applicants' display device compared to Stern's device.

Because Stern fails to teach a display device wherein a movable element is situated in an evacuated space below 0.1 atmosphere, and because Stern specifically teaches techniques to compensate for the non-evacuated space in Stern's device, the applicants respectfully maintain that the rejection of claims 1, 3, 5,

10-11, 13-15, and 22 under 35 U.S.C. 103(a) over Stern is unfounded, per MPEP 2142.

The Office action rejects claims 4, 8-9, 12, 16-18, and 20 under 35 U.S.C. 103(a) over Stern and Adachi et al. (USP 5,631,664, hereinafter Adachi). The applicants respectfully traverse this rejection.

The Examiner's attention is requested to MPEP 2143, wherein it is stated:

> "THE PRIOR ART MUST SUGGEST THE DESIRABILITY OF THE CLAIMED INVENTION ... The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). ... The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)".

Claim 2, upon which claims 4, 8-9, and 16-18 depend, claims a display device that includes a light guide, a movable element, and selection means to locally bring the movable element into contact with the light guide, wherein the selection means comprise transparent electrodes and, in operation, the movable element contacts the light guide at the location of an electrode, thus causing light to be emitted through the transparent electrode. Claims 12 and 20 include a similar limitation.

Stern teaches a light guide with a movable element and opaque selection means that are located at the periphery of the light propagation path. Adachi teaches a display device with transparent electrodes, but these electrodes are not part of selection means that cause a movable element to contact a light plate. There is no suggestion in Stern to use transparent electrodes. The mere fact that the teachings of Stern and Adachi can be combined does not render the combination obvious, because neither Stern nor Adachi suggests the desirability of this combination.

In each of the variety of embodiments taught by Stern, an unobstructed light path is created by avoiding the placement of the electrodes that provide the movement of the tap beam in the region at which the tap beam contacts the light-storing plate. Stern does not identify or suggest any deficiencies in this design that would suggest a different placement of the electrodes. Further, the placement of an electrode at the region at which the tap beam contacts the light-storing plate will

adversely affect the mechanical flexibility of Stern's tap beam, and will adversely affect the light-transmission qualities of Stern's display. Therefore, an assertion that combination is obviously 'desirable' is unfounded. The applicants, on the other hand, disclose a variety of techniques that make this combination feasible and practical, particularly in the realm of reducing the mechanical forces required to effect the coupling and decoupling of the movable element.

Because neither Stern nor Adachi teach or suggest a display device with transparent movement-activating electrodes, and because there is no suggestion in either Stern or Adachi to provide a combination that includes transparent movement-activating electrodes, and because the combination is not obviously desirable, the applicants respectfully maintain that the rejection of claims 4, 8-9, 12, 16-18, and 20 under 35 U.S.C. 103(a) over Stern and Adachi is unfounded, per MPEP 2142 and 2143.

In view of the foregoing, the applicants respectfully request that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application to be in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Robert M. McDermott
Reg. 41,508
Att'y for Applicant(s)

1824 Federal Farm Road
Montross, VA 22520
Phone: (804) 493-0707
Fax: (215) 243-7525